

**(12) INTERNATIONAL APPLICATION PUBLISHED UNDER
THE PATENT COOPERATION TREATY (PCT)**

(19) World Intellectual Property Organization International Bureau	[WIPO]	[Bar Code]
(43) International Publication Date	(10) International Publication Number	
October 7, 2004 (10/07/2004)	PCT	WO 2004/085853 A1

(51) International Patent Classification⁷: **F15B 1/24**

(21) International Application No.: **PCT/EP2004/000472**

(22) International Filing Date:
January 22, 2004 (01/22/2004)

(25) Language in which the international application was originally filed:
German

(26) Language in which the international application is published:
German

(30) Priority Data:
103 13 241.4 March 25, 2003 (03/25/2003) DE

(71) Applicant (*for all designated states except the US*):
HYDAC TECHNOLOGY GMBH [DE/DE]; Industriegebiet, 66280 Sulzbach/Saar (DE).

(72) Inventor; and

(75) Inventor/Applicant (*US only*): **WEBER, Norbert [DE/DE]; Mozartstrasse 5, D-66280 Sulzbach (DE). BALTES, Herbert [DE/DE]; Bornstrasse 22, 66679 Losheim (DE).**

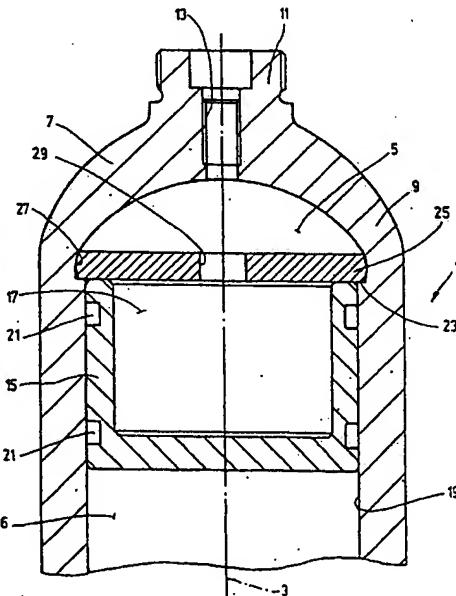
(74) Representative: **BARTELS AND PARTNER; Lange Strasse 51, 70174 Stuttgart (DE).**

(81) Designated States (*unless indicated otherwise, for each available type of national protective right*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,

[continued on next page]

(54) Title: PISTON-TYPE ACCUMULATOR

WO 2004/085853 A1



9 begrenzender Anschlagkörper 25 vorgesehen.

(57) Abstract: The invention relates to a piston-type accumulator comprising an accumulator housing provided in the form of a cylinder tube (1), inside of which a separating piston (15), which separates two working spaces (5) and (6) from one another, can be displaced in an axial direction within a piston stroke area (19) of the cylinder tube (1), which is closed at both axial ends by a closure part (7) of which at least one, by deforming a deforming area (9) of the wall of the cylinder tube (1), said deforming area adjoining the piston stroke area (19), is provided in the form of part that exists as a single piece therewith. A stop body (25), which limits the movement of the separating piston (15) before reaching the deforming area (9), is provided inside the cylinder tube (1) at the location where the piston stroke area (19) transitions into the deforming area (9).

(57) Zusammenfassung: Bei einem Kolbenspeicher mit einem Speichergehäuse in Form eines Zylinderrohres 1, in dem ein Trennkolben 15, der zwei Arbeiträume 5 und 6 voneinander trennt, in Axialrichtung innerhalb eines Kolbenhubbereiches 19 des Zylinderrohres 1 verfahrbar ist, das an beiden axialen Enden durch einen Verschlussteil 7 abgeschlossen ist, von denen zumindest einer durch Verformen eines sich an den Kolbenhubbereich 19 anschließenden Umformbereiches 9 der Wand des Zylinderrohres 1 als damit einstöckiger Teil ausgebildet ist, ist im Inneren des Zylinderrohres 1 an der Stelle des Übergangs vom Kolbenhubbereich 19 zum Umformbereich 9 ein die Bewegung des Trennkolbens 15 vor Erreichen des Umformbereiches

TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,
YU, ZA, ZM, ZW.

SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

(84) Designated States (*unless indicated otherwise, for each available type of regional protective law*):
ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL,
SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM), European Patent (AT,
BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,
GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI,

Published:

— *With International Search Report.*

Reference is made for an explanation of the two-letter codes and the other abbreviations to the Guidance Notes on Codes and Abbreviations in the front section of each regular PCT Gazette edition.